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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/781,157
Filing Date: February 18, 2004
Appellant(s): BACKES ET AL.

Backes et al.
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 1/10/08 appealing from the Office action mailed on 5/23/07.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,580,700 to Pinard et al.

Regarding claims 1, 11, English teaches a method for use by a wireless device (e.g., mobile node 902a, see FIG. 10) in a wireless communications environment (see fig.10, page.11, paragraph 0164; wireless network 900b), the method comprising the steps of associating the wireless device with a current access point (e.g., see page 12, paragraph 0165; mobile node 902a is serviced by first access point 904a. In addition, see paragraph 0170, particularly lines 9-17 mobile node 902a is able to make decision which of access points 904a or 904b it is associated with); ascertaining, by the wireless device (mobile 902a), whether the wireless device should attempt to associate with an alternative access point including calculating distance to the alternate access point as indicated by signal strength of at least one communication received from the alternate access point (e.g., see paragraph 0171, page 13, mobile node 902a while moving from access

point 904a to access point 904b, finds that the signal power/BER (signal strength) is better with access point 904b, so the mobile 902a decides to associate with access point 904b. The access point 904b tells the mobile node 902a to wait until it gets to a distance X from the access point 904b before trying to associate with the access point 904b); and requesting association with the alternative access point if it is ascertained that the alternative access point is preferable (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not explicitly disclose the ascertaining includes calculating an indication of available data rate and load from the alternative access point.

Pinard, like English, also teaches a method for use by a wireless device for associating with access points (e.g., see abstract and col. 2, line 36-col. 3, line 36). Further, Pinard specifically teaches ascertaining for association with an alternative access point (e.g., see col. 2, lines 49-59 regarding "associating with the most eligible access point at the highest data rate") includes calculating an indication of available data rate from the alternate access point (see fig.3, col.5, lines 15-30; mobile unit sending out probe packets to all access points and evaluates signal quality from all access points within the range to determine the most eligible access point at the highest data rate (see fig.3; col.5, lines 15-30). Pinard further discloses in fig.5, steps 19 and 20, col.6, lines 20-30; that the access point selects the most eligible access point (alternative access point) based on how many mobile units (current load) currently are

associated with a given access point). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Pinard to the access point association method of English in order to provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35).

Regarding claim 2, examiner does not examines limitation "operating on other channels" because this limitation lacks of antecedent and is not supported by its parent claim. English teaches automatically collecting, by the wireless device, information about alternative access points (e.g., see in page 12, paragraph 0166; mobile node scans for available access points and automatically connects to a desired access point).

Regarding claim 3, Pinard teaches ascertaining further includes the step of determining that the wireless device should attempt to associate with the alternative access point if the alternative access point has a lower biased distance relative to the wireless device (e.g., see page 13, paragraph 0171; the mobile 902a waits until it gets to distance X from the access point 904b before trying to associate with access point 904b; the distance X means that the signal power/BER with access point 904b is better).

Regarding claim 4, English in view of Pinard teach the method discussed above regarding claim 3, and further, English teaches calculating a first biased distance between the wireless device (e.g., mobile node 902) and the current access point based on "x" samples (e.g., see paragraphs 0167-0168 and 0175 regarding the impulse radio unit 1016 within mobile node 902 triangulating the current position of the mobile node

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902, inherently comprising three or more samples); and calculating a second biased distance between the wireless device and the alternative access point based on "y" samples (e.g., see paragraphs 0175-0180, mobile node 902 estimating such a distance by comparing the current position of the mobile node 902 with a map generated in step 1104 of FIG. 11 which comprises the position of a different access point such as 904b or 904c) where "y" (e.g., known position of mobile node 902 and known position of access point 904b) is less than "x" (e.g., three or more samples for triangulating the current position of mobile node 902). Also, as discussed above, Pinard teaches ascertaining further includes the step of determining that the wireless device should attempt to associate with the alternative access point if the alternative access point has a greater available data rate than the current access point (e.g., see col. 5, lines 26-31; regarding selecting the "highest data rate" for association and see col. 7, lines 26-31; regarding not associating with an alternative access point if the alternative access point is the same data rate with similar signal strength as the current access point). As discussed above, the teachings of Pinard provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35). Thus, at the time of the invention it would have been obvious to one of ordinary skill in the art to apply the access point association teachings of Pinard to the access point association method of English in order to provide access point association with improved selection of an optimum access point (e.g., see col. 2, lines 26-35).

Regarding claim 5, English teaches sending a message to the alternative access point (e.g., see paragraph 0173, mobile node 902a communicates with different access points 904b, 904c via impulse radio signals 914, see fig.9).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. US 2003/0036374 by English et al. in view of U.S. Patent No. 6,580,700 to Pinard et al. and further in view of Parks (US pat. 6,959,001 B1).

Regarding claim 12, since applicant indicates in the Remark that the communication protocol is IEEE 802.11x (see Remark). It is required that the IEEE 802.11x be shown in the claim. However, English discloses the wireless network 900a is applied in ultra-wideband technology. Pinnard discloses an IEEE 802x protocol (col.10, lines 35-40; communication protocol). Therefore, it would have been obvious to one ordinary skilled in the art to use the IEEE 802.11x protocol in the English et al. invention in order to allow the mobile unit determining an alternate access point with a highest data rate to associate its communication with.

(10) Response to Argument

On the Remark, pages 5-7, Appellants argue that the combination of English and Pinard fails to disclose ascertains whether the wireless device should attempts to select an alternative access point based on distance to the alternative access point, load on the alternative access point and available data rate from the alternative access point.

Appelants is directed that English teaches a wireless device (e.g., mobile node 902a, see FIG. 10) in a wireless communications environment (see fig.10, page.11, paragraph 0164; wireless network 900b). The the wireless device is associated with a current access point (e.g., see page 12, paragraph 0165; mobile node 902a is serviced by first access point 904a. In addition, see paragraph 0170, particularly lines 9-17 mobile node 902a is able to make decision which of access points 904a or 904b it is associated with). English further discloses ascertaining, by the wireless device (mobile 902a), whether the wireless device should attempt to associate with an alternative access point including calculating distance to the alternate access point as indicated by signal strength of at least one communication received from the alternate access point (e.g., see paragraph 0171, page 13, mobile node 902a while moving from access point 904a to access point 904b, finds that the signal power/BER (signal strength) to access point 904b is better, so the mobile 902a decides to associate with access point 904b. The access point 904b tells the mobile node 902a to wait until it gets to a distance X from the access point 904b before trying to associate with the access point 904b); and requesting association with the alternative access point if it is ascertained that the alternative access point is preferable (e.g., see paragraph 0180 regarding the handoff of communications to a new access point; see also generally paragraphs 0146-0181).

However, English may not explicitly disclose the ascertaining includes calculating an indication of available data rate and load from the alternative access point.

Pinard, like English, also teaches a method allowing a wireless device to select an access point for maximizing data throughput (e.g., see col. 2, lines 40-48). In particular, Pinard teaches ascertaining for association with an alternative access point (e.g., see col. 2, lines 49-59 regarding "associating with the most eligible access point at the highest data rate") includes calculating an indication of available data rate from the alternate access point (see fig.3, col.5, lines 15-30; mobile unit sending out probe packets to all access points and evaluates signal quality from all access points within the range to determine the most eligible access point at the highest data rate (see fig.3; col.5, lines 15-30). Pinard further discloses in fig.5, steps 19 and 20, col.6, lines 20-30; that the access point selects the most eligible access point (alternative access point) based on how many mobile units (current load) currently associated with a given access point).

Thus, at the time of the invention it would have been obvious to one of ordinary skilled in the art to combine the teachings of Pinard which includes selecting of an alternative access point based on available rate and load of the access point; with the teaching of English including selecting an alternative access point based on distance to the alternative access point indicatyed by signal strength in order to improve signal quality of wireless station during roaming between different locations.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Hanh Nguyen/

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